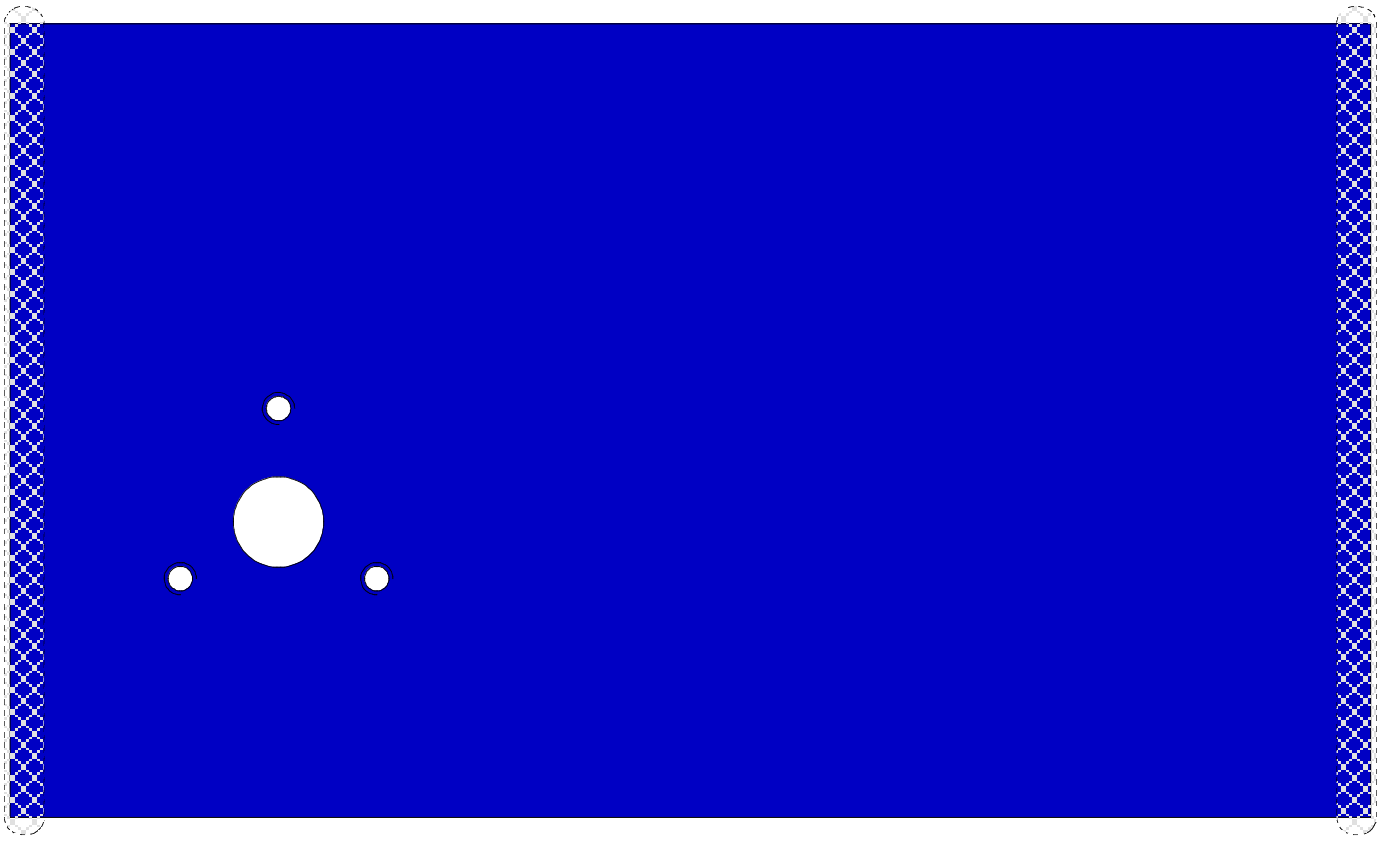
Front

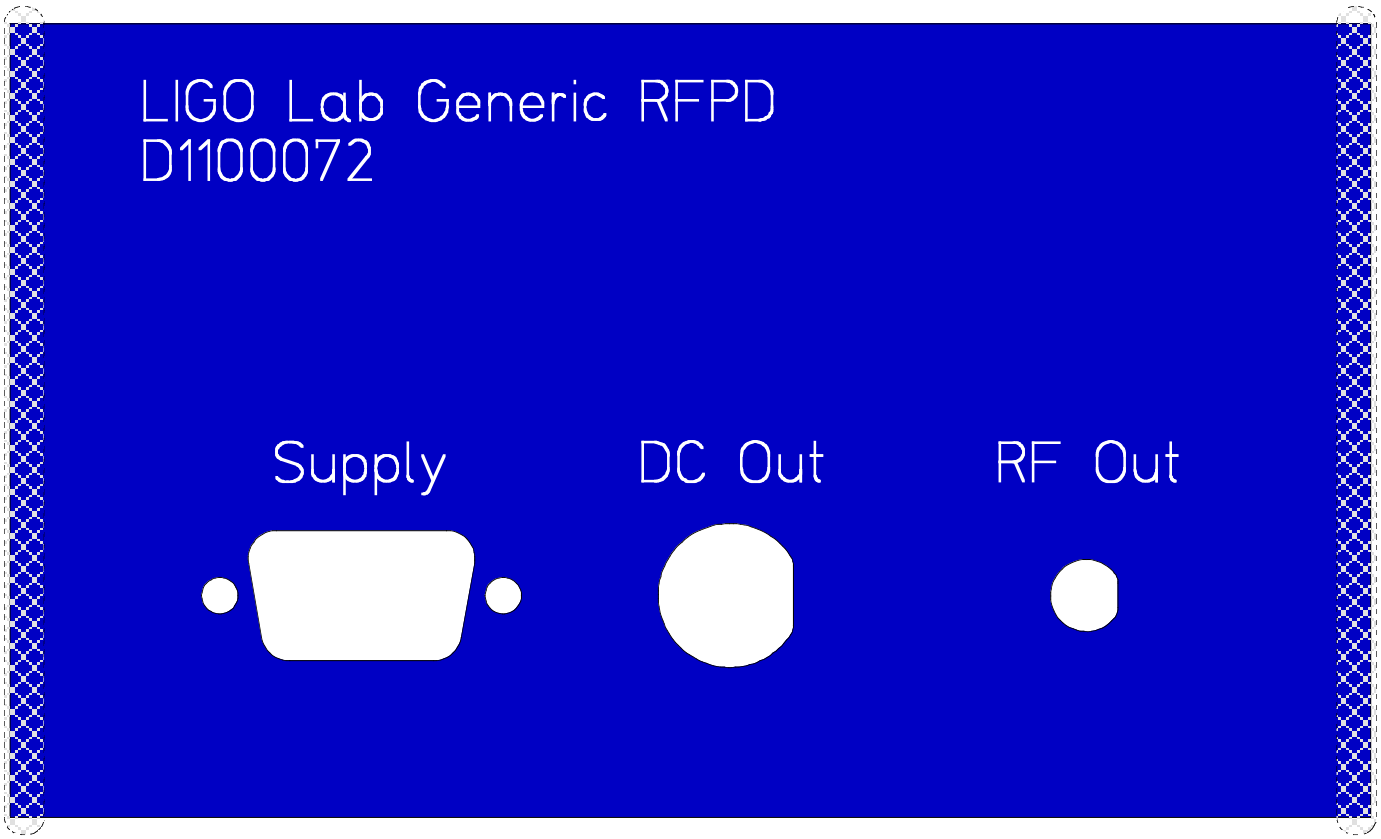


PD is inserted from the front throught the hole.

A circular copper plate will have a hole and cavity milled out with the PD's dimensions. This plate will be screwed to the front of the box once the PD is in place to fasten it and to serve as a heat sink. We can apply thermal compound between them.

The three holes are tapped 4-40 so that we can screw the plate down from the front.

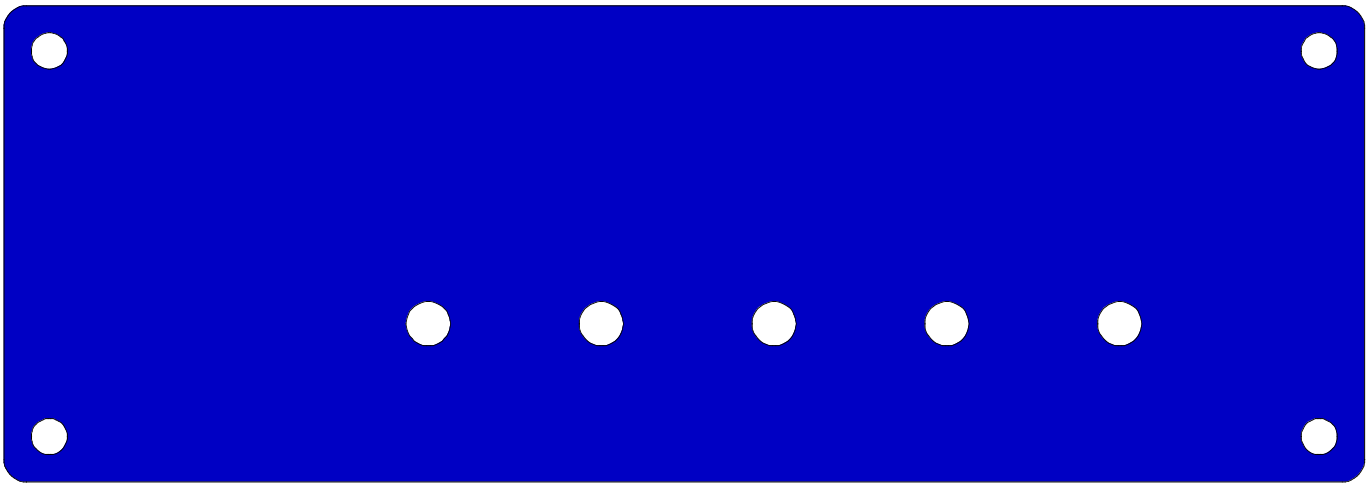
Back



Supply: 9-pin Sub-D (power in and DC out to rack)
DC Out: BNC
RF Out: SMA

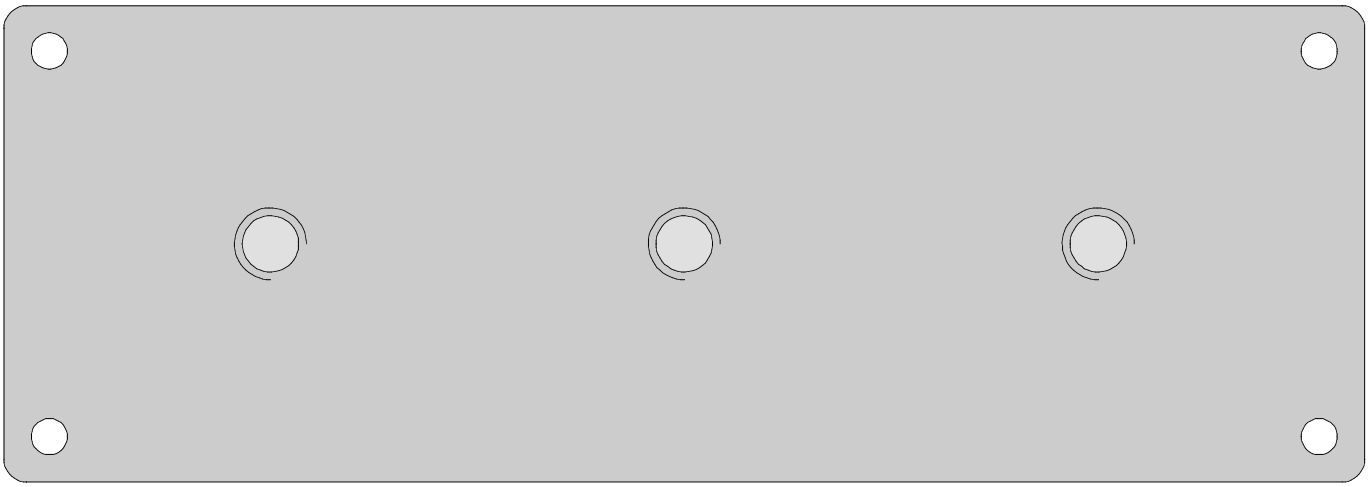
DC & RF out will be feedthroughs. Inside the box will be detachable patch cables that go from BNC/SMA -> SMP for attachment to board.

Top



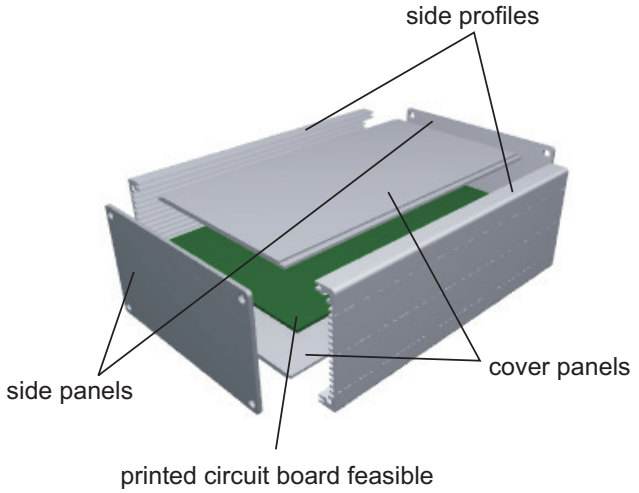
Holes in center for mounting voltage regulators

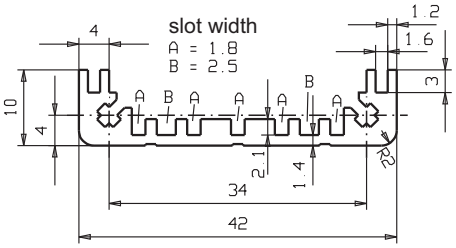
Bottom



1 cm thick for rigidity (other 3 panels are 4 mm). Three 1/4-20 blind holes (8 mm deep) for mounting to base. Leftmost hole is directly under PD so that we don't rotate diode out of beam path during initial stage of just using a post.

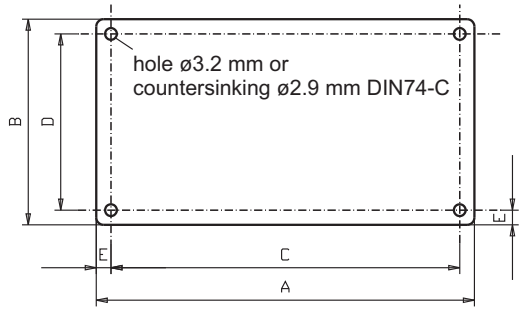
Side profile 1





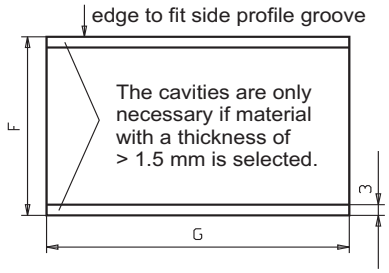
The length of the side profile is the same as the length of the cover panel (G).

Side panels



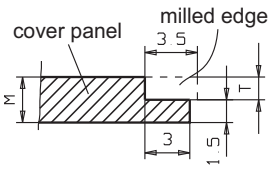
Width of enclosure (A) =	≧ 30; ≦ 1000 mm
or (A) =	Board width + 3 mm
Height of enclosure (B) =	42 mm
C =	A – 8 mm
D =	34 mm
E =	4 mm
Material thickness =	≧ 2 mm
Corner radius =	2 mm

Cover panels

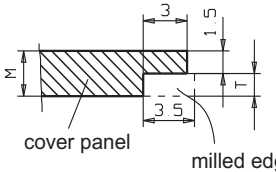


Cover panel length (G) =	≧ 30; ≦ 1000 mm	
Material thickness (M) =	≧ 1.5 mm	
Corner radius =	0 mm	
Cover panel height (F) =	A - 14.2 mm	
Cavity	F1 (Case 1)	F2 (Case 2)
Height =	3.5 mm	3.5 mm
Width =	G + 3 mm	G + 3 mm
Depth (T) =	M – 1.5 mm	M – 1.5 mm
Cavity shape:	rectangular	rectangular
Corner radius =	1.5 mm	1.5 mm
Tool =	3 mm	3 mm
Rotation angle =	0° (when aligned horizontally) 90° (when aligned vertically)	
On reverse side:	no	yes

Cavity outside (F1)



Cavity inside (F2)



With material thicknesses >2.5 mm the cover panel overlaps the side profile. It is best to position the cavity inside.

When the alignment is vertical the X and Y values are exchanged.

Cavity placement (horizontal alignment)		F1 (Case 1)	F2 (Case 2)
lower cavity	X =	G / 2	G / 2
	Y =	1.25 mm	1.25 mm
upper cavity	X =	G / 2	G / 2
	Y =	F – 1.25 mm	F – 1.25 mm